



SEQUENCE LISTING

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TECH CENTER 1000/2000

<110> Lamb, Jonathan R
Dallman, Margaret J
Hoyne, Gerard F

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Leu Asn Gly Gly His Cys Gln Asn Glu Ile Asn Arg Phe Gln Cys Leu
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Cys Pro Thr Gly Phe Ser Gly Asn Leu Cys Gln Leu Asp Ile Asp Tyr
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Cys Glu Pro Asn Pro Cys Gln Asn Gly Ala Gln Cys Tyr Asn Arg Ala
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Ser Cys Thr Val Ala Met Ala Ser Asn Asp Thr Pro Glu Gly Val Arg
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Glu Val Lys Val Glu Thr Val Val Thr Gly Gly Ser Ser Thr Gly Leu
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 <212> PRT
 <213> Gallus sp.

<400> 8

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Arg Asn Pro Gly Asp Lys Lys Cys Thr Arg Asp Glu Cys Asp Thr Tyr
 35 40 45

Phe Lys Val Cys Leu Lys Glu Tyr Gln Ser Arg Val Thr Ala Gly Gly
 50 55 60

Pro Cys Ser Phe Gly Ser Lys Ser Thr Pro Val Ile Gly Gly Asn Thr
 65 70 75 80

Phe Asn Leu Lys Tyr Ser Arg Asn Asn Glu Lys Asn Arg Ile Val Ile
 85 90 95

Pro Phe Thr Phe Ala Trp Pro Arg Ser Tyr Thr Leu Leu Val Glu Ala
 100 105 110

Trp Asp Tyr Asn Asp Asn Ser Thr Asn Pro Asp Arg Ile Ile Glu Lys
 115 120 125

Ala Ser His Ser Gly Met Ile Asn Pro Ser Arg Gln Trp Gln Thr Leu
 130 135 140

Lys His Asn Thr Gly Ala Ala His Phe Glu Tyr Gln Ile Arg Val Thr
 145 150 155 160

Cys Ala Glu His Tyr Tyr Gly Phe Gly Cys Asn Lys Phe Cys Arg Pro
 165 170 175

Arg Asp Asp Phe Phe Thr His His Thr Cys Asp Gln Asn Gly Asn Lys
 180 185 190

Thr Cys Leu Glu Gly Trp Thr Gly Pro Glu Cys Asn Lys Ala Ile Cys
 195 200 205

Arg Gln Gly Cys Ser Pro Lys His Gly Ser Cys Thr Val Pro Gly Glu
 210 215 220

Cys Arg Cys Gln Tyr Gly Trp Gln Gly Gln Tyr Cys Asp Lys Cys Ile
 225 230 235 240

Pro His Pro Gly Cys Val His Gly Thr Cys Ile Glu Pro Trp Gln Cys
 245 250 255

Leu Cys Glu Thr Asn Trp Gly Gly Gln Leu Cys Asp Lys Asp Leu Asn
 260 265 270

Tyr Cys Gly Thr His Pro Pro Cys Leu Asn Gly Gly Thr Cys Ser Asn
 275 280 285

Thr Gly Pro Asp Lys Tyr Gln Cys Ser Cys Pro Glu Gly Tyr Ser Gly
 290 295 300

Gln Asn Cys Glu Ile Ala Glu His Ala Cys Leu Ser Asp Pro Cys His
 305 310 315 320

Asn Gly Gly Ser Cys Leu Glu Thr Ser Thr Gly Phe Glu Cys Val Cys
 325 330 335

Ala Pro Gly Trp Ala Gly Pro Thr Cys Thr Asp Asn Ile Asp Asp Cys
 340 345 350

Ser Pro Asn Pro Cys Gly His Gly Gly Thr Cys Gln Asp Leu Val Asp
 355 360 365

Gly Phe Lys Cys Ile Cys Pro Pro Gln Trp Thr Gly Lys Thr Cys Gln
 370 375 380

Leu Asp Ala Asn Glu Cys Glu Gly Lys Pro Cys Val Asn Ala Asn Ser
 385 390 395 400

Cys Arg Asn Leu Ile Gly Ser Tyr Tyr Cys Asp Cys Ile Thr Gly Trp
 405 410 415

Ser Gly His Asn Cys Asp Ile Asn Ile Asn Asp Cys Arg Gly Gln Cys
 420 425 430

Gln Asn Gly Gly Ser Cys Arg Asp Leu Val Asn Gly Tyr Arg Cys Ile
 435 440 445

Cys Ser Pro Gly Tyr Ala Gly Asp His Cys Glu Lys Asp Ile Asn Glu
 450 455 460

Cys Ala Ser Asn Pro Cys Met Asn Gly Gly His Cys Gln Asp Glu Ile
 465 470 475 480

Asn Gly Phe Gln Cys Leu Cys Pro Ala Gly Phe Ser Gly Asn Leu Cys
 485 490 495

Gln Leu Asp Ile Asp Tyr Cys Glu Pro Asn Pro Cys Gln Asn Gly Ala
 500 505 510

Gln Cys Phe Asn Leu Ala Met Asp Tyr Phe Cys Asn Cys Pro Glu Asp
 515 520 525

Tyr Glu Gly Lys Asn Cys Ser His Leu Lys Asp His Cys Arg Thr Thr
 530 535 540

Pro Cys Glu Val Ile Asp Ser Cys Thr Val Ala Val Ala Ser Asn Ser
 545 550 555 560

Thr Pro Glu Gly Val Arg Tyr Ile Ser Ser Asn Val Cys Gly Pro His
 565 570 575

Gly Lys Cys Lys Ser Gln Ala Gly Gly Lys Phe Thr Cys Glu Cys Asn
580 585 590

Lys Gly Phe Thr Gly Thr Tyr Cys His Glu Asn Ile Asn Asp Cys Glu
595 600 605

Ser Asn Pro Cys Lys Asn Gly Gly Thr Cys Ile Asp Gly Val Asn Ser
610 615 620

Tyr Lys Cys Ile Cys Ser Asp Gly Trp Glu Gly Thr Tyr Cys Glu Thr
625 630 635 640

Asn Ile Asn Asp Cys Ser Lys Asn Pro Cys His Asn Gly Gly Thr Cys
645 650 655

Arg Asp Leu Val Asn Asp Phe Phe Cys Glu Cys Lys Asn Gly Trp Lys
660 665 670

Gly Lys Thr Cys His Ser Arg Asp Ser Gln Cys Asp Glu Ala Thr Cys
675 680 685

Asn Asn Gly Gly Thr Cys Tyr Asp Glu Gly Asp Thr Phe Lys Cys Met
690 695 700

Cys Pro Ala Gly Trp Glu Gly Ala Thr Cys Asn Ile Ala Arg Asn Ser
705 710 715 720

Ser Cys Leu Pro Asn Pro Cys His Asn Gly Gly Thr Cys Val Val Ser
725 730 735

Gly Asp Ser Phe Thr Cys Val Cys Lys Glu Gly Trp Glu Gly Pro Thr
740 745 750

Cys Thr Gln Asn Thr Asn Asp Cys Ser Pro His Pro Cys Tyr Asn Ser
755 760 765

Gly Thr Cys Val Asp Gly Asp Asn Trp Tyr Arg Cys Glu Cys Ala Pro
770 775 780

Gly Phe Ala Gly Pro Asp Cys Arg Ile Asn Ile Asn Glu Cys Gln Ser
785 790 795 800

Ser Pro Cys Ala Phe Gly Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr

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Thr	Gly	Arg	Pro	Cys	Phe	Thr	Ser	Ile	Arg	Val	Met	Pro	Asp	Gly	Ala																			
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Lys	Gly	His	Asn	Glu	Cys	Pro	Ala	Gly	His	Ala	Cys	Val	Pro	Val	Lys																			
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Glu	Asp	His	Cys	Phe	Thr	His	Pro	Cys	Ala	Ala	Val	Gly	Glu	Cys	Trp																			
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Leu	Asn	Ile	Leu	Lys	Asn	Val	Ser	Ala	Glu	Tyr	Ser	Ile	Tyr	Ile	Thr																			
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Cys	Glu	Pro	Ser	His	Leu	Ala	Asn	Asn	Glu	Ile	His	Val	Ala	Ile	Ser																			
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Ala	Glu	Asp	Ile	Gly	Glu	Asp	Glu	Asn	Pro	Ile	Lys	Glu	Ile	Thr	Asp																			
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Lys	Ile	Ile	Asp	Leu	Val	Ser	Lys	Arg	Asp	Gly	Asn	Asn	Thr	Leu																				
	1010					1015					1020																							
Ile	Ala	Ala	Val	Ala	Glu	Val	Arg	Val	Gln	Arg	Arg	Pro	Val	Lys																				
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Asn Lys Thr Asp Phe Leu Val Pro Leu Leu Ser Ser Val Leu Thr
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Val Ala Trp Ile Cys Cys Leu Val Thr Val Phe Tyr Trp Cys Ile
 1055 1060 1065

Gln Lys Arg Arg Lys Gln Ser Ser His Thr His Thr Ala Ser Asp
 1070 1075 1080

Asp Asn Thr Thr Asn Asn Val Arg Glu Gln Leu Asn Gln Ile Lys
 1085 1090 1095

Asn Pro Ile Glu Lys His Gly Ala Asn Thr Val Pro Ile Lys Asp
 1100 1105 1110

Tyr Glu Asn Lys Asn Ser Lys Ile Ala Lys Ile Arg Thr His Asn
 1115 1120 1125

Ser Glu Val Glu Glu Asp Asp Met Asp Lys His Gln Gln Lys Ala
 1130 1135 1140

Arg Phe Ala Lys Gln Pro Ala Tyr Thr Leu Val Asp Arg Asp Glu
 1145 1150 1155

Lys Pro Pro Asn Ser Thr Pro Thr Lys His Pro Asn Trp Thr Asn
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Met Glu Tyr Ile Val
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 <213> Gallus sp.

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taccagtcgg tgtacgtcat atcagaagag aaagatgagt gcatcatagc aactgagggtg	2040
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 <211> 2883
 <212> DNA
 <213> Gallus sp.

<220>
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ctt 2883

<210> 11

<211> 728

<212> PRT

<213> Gallus sp.

<400> 11

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Glu Phe Val Asn Lys Lys Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg
35 40 45

Gly Gly Gly Pro Gly Gly Ala Gly Gln Gln Gln Cys Asp Cys Lys Thr
50 55 60

Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala Ser Val Ser Pro Glu
65 70 75 80

Pro Pro Cys Thr Tyr Gly Ser Ala Ile Thr Pro Val Leu Gly Ala Asn
85 90 95

Ser Phe Ser Val Pro Asp Gly Ala Gly Gly Ala Asp Pro Ala Phe Ser
100 105 110

Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser
115 120 125

Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp Asp Leu Thr Thr
130 135 140

Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr Gln Arg His Leu
145 150 155 160

Ala Val Gly Glu Glu Trp Ser Gln Asp Leu His Ser Ser Gly Arg Thr
165 170 175

Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu His Tyr Tyr Gly

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Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp Arg Phe Gly His		
195	200	205
Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn Pro Gly Trp Lys		
210	215	220
Gly Gln Tyr Cys Thr Glu Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln		
225	230	235
His Gly Phe Cys Asp Lys Pro Gly Glu Cys Lys Cys Arg Val Gly Trp		
245	250	255
Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro Gly Cys Leu His		
260	265	270
Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly		
275	280	285
Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr His His Lys Pro		
290	295	300
Cys Lys Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln Gly Ser Tyr Thr		
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Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ser Ser Cys Glu Ile Glu Ile		
325	330	335
Asn Glu Cys Asp Ala Asn Pro Cys Lys Asn Gly Gly Ser Cys Thr Asp		
340	345	350
Leu Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly Lys		
355	360	365
Asn Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn		
370	375	380
Gly Gly Arg Cys Thr Asp Asn Pro Asp Gly Gly Tyr Ser Cys Arg Cys		
385	390	395
Pro Leu Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys		
405	410	415

Ser Ser Ser Pro Cys Ala Asn Gly Ala Gln Cys Val Asp Leu Gly Asn
420 425 430

Ser Tyr Ile Cys Gln Cys Gln Ala Gly Phe Thr Gly Arg His Cys Asp
435 440 445

Asp Asn Val Asp Asp Cys Ala Ser Phe Pro Cys Val Asn Gly Gly Thr
450 455 460

Cys Gln Asp Gly Val Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr
465 470 475 480

Asn Gly Lys Asn Cys Ser Thr Pro Val Ser Arg Cys Glu His Asn Pro
485 490 495

Cys His Asn Gly Ala Thr Cys His Glu Arg Ser Asn Arg Tyr Val Cys
500 505 510

Glu Cys Ala Arg Gly Tyr Gly Gly Leu Asn Cys Gln Phe Leu Leu Pro
515 520 525

Glu Pro Pro Gln Gly Pro Val Ile Val Asp Phe Thr Glu Lys Tyr Thr
530 535 540

Glu Gly Gln Asn Ser Gln Phe Pro Trp Ile Ala Val Cys Ala Gly Ile
545 550 555 560

Ile Leu Val Leu Met Leu Leu Leu Gly Cys Ala Ala Ile Val Val Cys
565 570 575

Val Arg Leu Lys Val Gln Lys Arg Lys Lys Gln Pro Glu Ala Cys Arg
580 585 590

Ser Glu Thr Glu Thr Met Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys
595 600 605

Asp Ile Ser Ile Ser Val Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn
610 615 620

Lys Lys Val Asp Phe His Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys
625 630 635 640

Val Arg Tyr Pro Ser Val Asp Tyr Asn Leu Val His Glu Leu Lys Asn
645 650 655

Glu Asp Ser Val Lys Glu Glu His Gly Lys Cys Glu Ala Lys Cys Glu
660 665 670

Thr Tyr Asp Ser Glu Ala Glu Glu Lys Ser Ala Val Gln Leu Lys Ser
675 680 685

Ser Asp Thr Ser Glu Arg Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser
690 695 700

Lys Asp Thr Lys Tyr Gln Ser Val Tyr Val Ile Ser Glu Glu Lys Asp
705 710 715 720

Glu Cys Ile Ile Ala Thr Glu Val
725

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<211> 721
<212> PRT
<213> Xenopus sp.

<400> 12

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Cys Gln Ile Ser Cys Ser Gly Leu Phe Glu Leu Arg Leu Gln Glu Phe
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Val Asn Lys Lys Gly Leu Leu Gly Asn Met Asn Cys Cys Arg Pro Gly
35 40 45

Ser Leu Ala Ser Leu Gln Arg Cys Glu Cys Lys Thr Phe Phe Arg Ile
50 55 60

Cys Leu Lys His Tyr Gln Ser Asn Val Ser Pro Glu Pro Pro Cys Thr
65 70 75 80

Tyr Gly Gly Ala Val Thr Pro Val Leu Gly Thr Asn Ser Phe Val Val
85 90 95

Pro Glu Ser Ser Asn Ala Asp Pro Thr Phe Ser Asn Pro Ile Arg Phe

100	105	110
Pro Phe Gly Phe Thr Trp	Pro Gly Thr Phe Ser Leu	Ile Ile Glu Ala
115	120	125
Ile His Ala Asp Ser Ala	Asp Asp Leu Asn Thr	Glu Asn Pro Glu Arg
130	135	140
Leu Ile Ser Arg Leu Ala	Thr Gln Arg His Leu Thr	Val Gly Glu Gln
145	150	155
160		
Trp Ser Gln Asp Leu His	Ser Ser Asp Arg Thr	Glu Leu Lys Tyr Ser
165	170	175
Tyr Arg Phe Val Cys Asp	Glu Tyr Tyr Tyr Gly	Glu Gly Cys Ser Asp
180	185	190
Tyr Cys Arg Pro Arg Asp	Asp Ala Phe Gly His	Phe Ser Cys Gly Glu
195	200	205
Lys Gly Glu Lys Leu Cys	Asn Pro Gly Trp Lys	Gly Leu Tyr Cys Thr
210	215	220
Glu Pro Ile Cys Leu Pro	Gly Cys Asp Glu His	His Gly Tyr Cys Asp
225	230	235
240		
Lys Pro Gly Glu Cys Lys	Cys Arg Val Gly Trp	Gln Gly Arg Tyr Cys
245	250	255
Asp Glu Cys Ile Arg Tyr	Pro Gly Cys Leu His	Gly Thr Cys Gln Gln
260	265	270
Pro Trp Gln Cys Asn Cys	Gln Glu Gly Trp Gly	Gly Leu Phe Cys Asn
275	280	285
Gln Asp Leu Asn Tyr Cys	Thr His His Lys Pro	Cys Glu Asn Gly Ala
290	295	300
Thr Cys Thr Asn Thr Gly	Gln Gly Ser Tyr Thr	Cys Ser Cys Arg Pro
305	310	315
320		
Gly Tyr Thr Gly Ser Asn	Cys Glu Ile Glu Val	Asn Glu Cys Asp Ala
325	330	335

Asn Pro Cys Lys Asn Gly Gly Ser Cys Ser Asp Leu Glu Asn Ser Tyr
340 345 350

Thr Cys Ser Cys Pro Pro Gly Phe Tyr Gly Lys Asn Cys Glu Leu Ser
355 360 365

Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ala
370 375 380

Asp Asn Pro Asp Gly Gly Tyr Ile Cys Phe Cys Pro Gly Val Tyr Ser
385 390 395 400

Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser Ser Asn Pro Cys
405 410 415

Ala Asn Gly Ala Arg Cys Glu Asp Leu Gly Asn Ser Tyr Ile Cys Gln
420 425 430

Cys Gln Glu Gly Phe Ser Gly Arg Asn Cys Asp Asp Asn Leu Asp Asp
435 440 445

Cys Thr Ser Phe Pro Cys Gln Asn Gly Gly Thr Cys Gln Asp Gly Ile
450 455 460

Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr Ile Gly Lys Asn Cys
465 470 475 480

Ser Met Pro Ile Thr Lys Cys Glu His Asn Pro Cys His Asn Gly Ala
485 490 495

Thr Cys His Glu Arg Asn Asn Arg Tyr Val Cys Gln Cys Ala Arg Gly
500 505 510

Tyr Gly Gly Asn Asn Cys Gln Phe Leu Leu Pro Glu Glu Lys Pro Val
515 520 525

Val Val Asp Leu Thr Glu Lys Tyr Thr Glu Gly Gln Ser Gly Gln Phe
530 535 540

Pro Trp Ile Ala Val Cys Ala Gly Ile Val Leu Val Leu Met Leu Leu
545 550 555 560

Leu Gly Cys Ala Ala Val Val Val Cys Val Arg Val Arg Val Gln Lys
565 570 575

Arg Arg His Gln Pro Glu Ala Cys Arg Gly Glu Ser Lys Thr Met Asn
580 585 590

Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Phe Ile
595 600 605

Gly Thr Thr Gln Ile Lys Asn Thr Asn Lys Lys Ile Asp Phe Leu Ser
610 615 620

Glu Ser Asn Asn Glu Lys Asn Gly Tyr Lys Pro Arg Tyr Pro Ser Val
625 630 635 640

Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Pro Lys Glu
645 650 655

Glu Arg Ser Lys Cys Glu Ala Lys Cys Ser Ser Asn Asp Ser Asp Ser
660 665 670

Glu Asp Val Asn Ser Val His Ser Lys Arg Asp Ser Ser Glu Arg Arg
675 680 685

Arg Pro Asp Ser Ala Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln Ser
690 695 700

Val Tyr Val Ile Ser Asp Glu Lys Asp Glu Cys Ile Ile Ala Thr Glu
705 710 715 720

Val

<210> 13
<211> 2692
<212> DNA
<213> Mus sp.

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caggagtctg tcaacaagaa ggggctgctg gggaaccgca actgctgccg cgggggctct 180

ggccccgctt ggcctgcag gaccttcttt cgcgtatgcc tcaagcacta ccaggccagc	240
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cccttcggct tcacctggcc aggtaccttc tctctgatca ttgaagccct ccatacagac	420
tctcccgatg acctcgcaac agaaaaccca gaaagactca tcagccgctt gaccacacag	480
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tactgtactc accataagcc gtgcaggaat ggagccacct gcaccaacac gggccagggg	960
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tatggcggcc ccaactgcca gtttctgtct cctgagccac caccagggcc catggtggtg	1620
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gccgggggtg tgcttgtct cctgtctgtg ctgggctgtg ctgctgtggt ggtctgcgtc	1740
cggctgaagc tacagaaaca ccagcctcca cctgaacct gtggggggaga gacagaaacc	1800
atgaacaacc tagccaattg ccagcgcgag aaggacgttt ctgttagcat cattggggct	1860
accagatca agaacaccaa caagaaggcg gactttcacg gggaccatgg agccgagaag	1920

agcagcttta aggtccgata cccactgtg gactataacc tcgttcgaga cctcaaggga 1980
 gatgaagcca cggtcaggga tacacacagc aaacgtgaca ccaagtgcca gtcacagagc 2040
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<210> 14
 <211> 722
 <212> PRT
 <213> Mus sp.

<400> 14

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Cys Gln Val Trp Ser Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe
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Val Asn Lys Lys Gly Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly
 35 40 45

Ser Gly Pro Pro Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys
 50 55 60

His Tyr Gln Ala Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser
 65 70 75 80

Ala Val Thr Pro Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly
 85 90 95

Ala Gly Ile Asp Pro Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly
 100 105 110

Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr
 115 120 125

Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser
 130 135 140

Arg Leu Thr Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser Gln
 145 150 155 160

Asp Leu His Ser Ser Gly Arg Thr Asp Leu Arg Tyr Ser Tyr Arg Phe
 165 170 175

Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg
 180 185 190

Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Asp Arg Gly Glu
 195 200 205

Lys Met Cys Asp Pro Gly Trp Lys Gly Gln Tyr Cys Thr Asp Pro Ile
 210 215 220

Cys Leu Pro Gly Cys Asp Asp Gln His Gly Tyr Cys Asp Lys Pro Gly
 225 230 235 240

Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu Cys
 245 250 255

Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp Gln
 260 265 270

Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp Leu
 275 280 285

Asn Tyr Cys Thr His His Lys Pro Cys Arg Asn Gly Ala Thr Cys Thr
 290 295 300

Asn Thr Gly Gln Gly Ser Tyr Thr Cys Ser Cys Arg Pro Gly Tyr Thr
 305 310 315 320

Gly Ala Asn Cys Glu Leu Glu Val Asp Glu Cys Ala Pro Ser Pro Cys
 325 330 335

Lys Asn Gly Ala Ser Cys Thr Asp Leu Glu Asp Ser Phe Ser Cys Thr
 340 345 350

Cys Pro Pro Gly Phe Tyr Gly Lys Val Cys Glu Leu Ser Ala Met Thr
 355 360 365

Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Asn Pro
 370 375 380

Asp Gly Gly Tyr Thr Cys His Cys Pro Leu Gly Phe Ser Gly Phe Asn
 385 390 395 400

Cys Glu Lys Lys Met Asp Leu Cys Gly Ser Ser Pro Cys Ser Asn Gly
 405 410 415

Ala Lys Cys Val Asp Leu Gly Asn Ser Tyr Leu Cys Arg Cys Gln Ala
 420 425 430

Gly Phe Ser Gly Arg Tyr Cys Glu Asp Asn Val Asp Asp Cys Ala Ser
 435 440 445

Ser Pro Cys Ala Asn Gly Gly Thr Cys Arg Asp Ser Val Asn Asp Phe
 450 455 460

Ser Cys Thr Cys Pro Pro Gly Tyr Thr Gly Lys Asn Cys Ser Ala Pro
 465 470 475 480

Val Ser Arg Cys Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His
 485 490 495

Gln Arg Gly Gln Arg Tyr Met Cys Glu Cys Ala Gln Gly Tyr Gly Gly
 500 505 510

Pro Asn Cys Gln Phe Leu Leu Pro Glu Pro Pro Gly Pro Met Val
 515 520 525

Val Asp Leu Ser Glu Arg His Met Glu Ser Gln Gly Gly Pro Phe Pro
 530 535 540

Trp Val Ala Val Cys Ala Gly Val Val Leu Val Leu Leu Leu Leu Leu
 545 550 555 560

Gly Cys Ala Ala Val Val Val Cys Val Arg Leu Lys Leu Gln Lys His
 565 570 575

Gln Pro Pro Pro Glu Pro Cys Gly Gly Glu Thr Glu Thr Met Asn Asn
 580 585 590

Leu Ala Asn Cys Gln Arg Glu Lys Asp Val Ser Val Ser Ile Ile Gly
 595 600 605

Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Ala Asp Phe His Gly Asp
 610 615 620

His Gly Ala Glu Lys Ser Ser Phe Lys Val Arg Tyr Pro Thr Val Asp
 625 630 635 640

Tyr Asn Leu Val Arg Asp Leu Lys Gly Asp Glu Ala Thr Val Arg Asp
 645 650 655

Thr His Ser Lys Arg Asp Thr Lys Cys Gln Ser Gln Ser Ser Ala Gly
 660 665 670

Glu Glu Lys Ile Ala Pro Thr Leu Arg Gly Gly Glu Ile Pro Asp Arg
 675 680 685

Lys Arg Pro Glu Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln
 690 695 700

Ser Val Tyr Val Leu Ser Ala Glu Lys Asp Glu Cys Val Ile Ala Thr
 705 710 715 720

Glu Val

<210> 15
 <211> 525
 <212> DNA
 <213> Homo sapiens

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tcgcacaaga atggmtttca aggccygcta cccagcgtg gactataact cgtgcaggac	180
ctcaaggggtg acgacaccgc cgtcaggacg tcgcacagca agcgtgacac caagtgccag	240
tccccaggct cctcagggag gagaagggga ccccgaccac actcaggggk tgcgtgctgc	300
gggccgggct caggaggggg tacctggggg gtgtcttctt ggaaccactg ctccgtttct	360
cttcccaaat gttctcatgc attcattgtg gatcttctct attttcttt tagtggagaa	420
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 <213> Homo sapiens

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<222> (1952)..(1954)

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<222> (1968)..(1968)

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 ngtacaagtc ggtgtncgtc atttccgnag gaggaaggnt gactgcgtca taggaantt 1920
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 t 1981

<210> 17
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 17

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 20 25 30

Ser Arg Leu Ala Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser
 35 40 45

Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg
 50 55 60

Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys
65 70 75 80

Arg Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly
85 90 95

Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Pro Tyr Cys Thr Glu Pro
100 105 110

Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys Asp Lys Pro
115 120 125

Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu
130 135 140

Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp
145 150 155 160

Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp
165 170 175

Leu Asn Tyr Cys Thr His His Lys Pro Cys Lys Asn Gly Ala Thr Cys
180 185 190

<210> 18
<211> 6
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<312> 1997-01-16

<400> 18

Thr Asn Thr Gly Gln Gly
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<210> 19
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<400> 19

Lys Asn Gly Gly Ser Leu Thr Asp Leu
1 5

<210> 20
 <211> 157
 <212> PRT
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Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly
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Gly Arg Cys Ser Asp Ser Pro Asp Gly Gly Tyr Ser Cys Arg Cys Pro
 35 40 45

Val Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser
 50 55 60

Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val Asp Leu Gly Asp Ala
 65 70 75 80

Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly Arg His Cys Asp Asp
 85 90 95

Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala Asn Gly Gly Thr Cys
 100 105 110

Arg Asp Gly Val Asn Asp Phe Ser Cys Thr Cys Pro Pro Gly Tyr Thr
 115 120 125

Gly Arg Asn Cys Ser Ala Pro Ala Ser Arg Cys Glu His Ala Pro Cys
 130 135 140

His Asn Gly Ala Thr Cys His Glu Arg Gly His Arg Tyr
 145 150 155

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 <212> PRT
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<400> 21

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Phe Leu Leu Pro Glu
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<210> 23
<211> 4
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Pro Pro Gly Pro
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<400> 24

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Gln Lys His Arg Pro Pro Ala Asp Pro
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<210> 25
<211> 10
<212> PRT
<213> Homo sapiens

<400> 25

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1 5 10

<210> 26
<211> 14
<212> PRT
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<400> 26

Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Ile Ile Gly
1 5 10

<210> 27
<211> 16
<212> PRT
<213> Homo sapiens

<400> 27

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<210> 28
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<400> 28

Ala Asp Lys Asn Gly Phe Lys Ala Arg Tyr Pro
1 5 10

<210> 29
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<212> PRT
<213> Homo sapiens

<400> 29

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1 5 10 15

Arg Asp Ala His Ser Lys Arg Asp Thr Lys
20 25

<210> 30
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<400> 30

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<210> 31
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<212> PRT
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<400> 31

Pro Thr Leu Arg
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<210> 32

<211> 4

<212> PRT

<213> Homo sapiens

<400> 32

Arg Lys Arg Pro
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